ISSN (Print): 2959-4391 ISSN (Online): 2959-4405

JOURNAL OF SOCIAL SCIENCES DEVELOPMENT

www.jssd.org.pk editor@jssd.org.pk

THE INFLUENCE OF INCLUSIVE LEADERSHIP ON WORKFORCE PERFORMANCE IN HEALTHCARE: A CROSS-SECTIONAL ANALYSIS

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KEYWORDS

Healthcare; Inclusive Leadership, Nurses Performance, Stress, Hospitals, PHCCs

ARTICLE HISTORY

Date of Submission: 12-08-2025
Date of Acceptance: 16-09-2025
Date of Publication: 18-09-2025

ABSTRACT

The aim of this study was to examine direct effect of inclusive leadership on health workforce performance. For this drive, cross-sectional quantitative study design was adopted. The population of this study were health workers specifically nursing staff form hospitals and primary healthcare centers (PHCCs) in Qassim region of Saudi Arabia. Non-probability convenience sampling technique was used to select the sample size. There are 6547 nurses Saudi and non-Saudi, working in the healthcare organizations in public and private sector as per data form Ministry of Health (MOH). In this regard, the online questionnaire was distributed and total 400 complete questionnaires were received and used in the analysis. PLS-SEM was run to investigate the reliability and validity of the scales; Moreover, the structural models were developed to test hypotheses. The results provide significant information for reaching the conclusion. The findings revealed that scales are found reliable and valid as all values of Cronbach alpha, average variance extracted and composite reliability and factor loadings meth threshold. Two hypotheses are accepted and one is rejected. The openness and accessibility are found to have significant effect on job performance while availability was found to be insignificant.

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DOI https://doi.org/10.53664/JSSD/04-03-2025-05-52-60

INTRODUCTION

Due to nature of the work, nurses remain continuously in state of psychological and physical stress during working hours (Du, Huang, Li & Zhang, 2024). The nurses work in isolation wards and have direct contact with infected patients is common. Psychological stress, emotional fatigue, burnout, depression and anxiety are commonly found amid nurses and linked to life-threatening conditions (Wu, Yino, Xinchun, Bing, Yanqing & Yuanli, 2022). Leaders can play pivotal role in well-being

of nurses. Also, fair leadership can reduce the depression and anxiety in stained work settings. The healthcare organizations' leadership needs to highlight factors and adopt such leadership styles that promote nurses' well-being, nurses' performance and organizational effectiveness (Carmeli, Palmon & Ziv, 2010; Lamas, 2018). One of the modern leadership styles which may affect positively on the nurses' performance is inclusive leadership (Abualruz, Ghabeesh, Gazar, Tabar, Sarayreh & Abousoliman, 2023). Inclusive leadership is a newly emerged idea along with variation in health staff (Shi, Ye & Ren, 2025). Leaders with such style shows uniqueness, openness, belongingness, accessibility and availability behaviors while interacting with their followers so that they may feel as a valued member of their healthcare organizations (Ahmed, Zhao, Faraz & Qin, 2021). Studies have found positive impact of inclusive leadership on nurses' performance, patient safety, quality care, effectiveness, psychological well-being of nurses & reduction in depression and stress (Wang, Feng, Wang & Li 2025).

Still there is a gap which needs to be filled in Saudi healthcare organizations especially in Qassim region. There is further needed to investigate this subject matter and extend the body of knowledge of inclusive leadership in the Saudi Arabia's healthcare organizations by contributing towards the literature of enhancing nurses' performance. The current study is based on conservation of resource theory (COR) (Wang, Feng, Wang, & Li, 2025). This theory exhibits that loss of resources put stress on employees in response individuals tried to make a balance for restoration of resources. In that case inclusive leaders act as a resource provider which they provide their employees with support, and developmental chances such as training and acquiring new skills so that they may add value to their expertise and get competitive advantage. Inclusive leaders also help their employees to increase their psychological attachment and emotional connection with the organizations, so that by doing so they got successful in strengthening the employees' resource reserves (Katsaros, 2024). The social exchange theory supported this study framework & provided strong theoretical ground for studying impact of inclusive leadership on nurses' performance. So, following research questions have been proposed:

RQ1: Is there significant association between the inclusive leadership & nurses' performance?
RQ2: Does inclusive leadership influence positively nurses' performance in particular context?

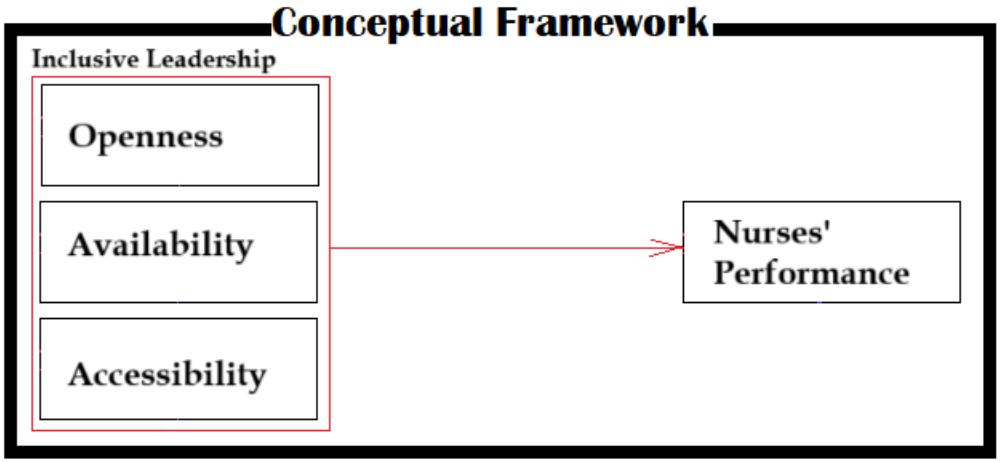
LITERATURE REVIEW

Health sector is a complex profession in which healthcare workers deal with stressful environments and need emotional support from their team management. In this regard healthcare leaders play important role in reshaping their team morals, improving cooperation, and promoting supportive culture to enhance the quality, safety and performance and creativity (Alsadaan, Jones, Kimpton, DaCosta, 2021). The hospitals and primary health care leadership are not only vital for nurses' performance but also establishes a culture of ethics, high moral values, and chances for growth and development (Mughal, 2024). In this connection, the healthcare management and leadership are essential for quality decision making, for effectively managing healthcare organizations, for that purpose nursing staff should be satisfied, productive and actively engaged in the organizational matters. As quick decisions are required to be made, by multiple teams in healthcare work settings. Leaders are supposed to be visionary, provide directions, assign roles and responsibilities, & clearly

tell employees what is expected from them to get the optimum level of performance from their nurses (Nair, 2025).

According to Korkmaz, Engen, Knappert and Schalk (2022), wide range of frameworks have been introduced and validated on the inclusive leadership. But, Randel, Galvin, Shore, Ehrhart, Chung, Dean and Kedharnath (2018) claimed that researchers did not agree yet on unified concept to measure inclusive leadership. Previously this paradigm was coined first by Edmondson (2006) stated that "inclusive leaders' behaviors and language demonstrate that they value contributions of others". They identified three facets openness, interaction and accessibility to measure inclusive leadership style. On other hand, Carmeli, Palmon and Ziv (2010) identified openness, effectiveness and accessibility as facets of the inclusive leadership. Under agenda of Vision 2030 Saudi health system is in process of reforms. These reforms include increasing patient care & satisfaction, quality and safety, public private partnership, efficiency and performance. Qassim region has numerous health facilities as operated by Qassim health cluster under Ministry of Health Saudi Arabia rules and regulations. These health facilities are categorized into three levels, first is primary health care centers, second is general hospitals and third is tertiary hospitals. With such complex work settings, strong leadership with caring behaviors are essential by discouraging toxic leadership behaviors in healthcare (Mughal, 2024).

Figure 1 Conceptual Framework



Hypotheses Development

Inclusive leadership and its three attributes openness, availability and accessibility are reported to have positive effect on employees helping behaviors and significant association in enhancing the nurses' performance (Qasim, Usman, Ghani & Khan 2022). The basic drive of inclusive leadership is to give more adequate attention and focus to their followers, so that performance be increased. Moreover, leaders can understand the issues and problems of the employees and propose them an adequate solution. Doing so, a harmonious relationship and bond can be created to make sure the employees get involved in the organizational matters and actively engaged their-selves in work (Qasim et al., 2022; Guo et al., 2020). In this specific leadership style, managers have to offer their

employees knowledge, time and financial resources required for an effort (Wang & Shi, 2021). Research shown that leadership plays positive, inspiring and inspirational role in attractive nurses' performance. Leadership study by Alharbi and Almansour (2025) reported positive influence of inclusive leadership on nurses' performance. Past studies stated that interpersonal relationship of leaders with subordinates, i.e., nurses also support in leveraging patients' outcomes, like satisfaction, quality of services, safety and nurses' engagement. Therefore, based on above, following hypotheses were postulated:

H1: Openness leadership positively & significantly associated with health workers' performance
H2: Availability of leadership style significantly predicts the health workers' performance
H3: Accessibility leadership style positively predicts the health workers' performance

RESEARCH METHODOLOGY

This study is quantitative and cross-sectional in nature. Data was collected from nursing staff of primary healthcare centers (PHCCs) and hospitals in Qassim province. Hospitals include general and specialist hospitals and mother and child hospitals. Non-probability convenience sampling technique was used. According to Ministry of Health (MOH) there are 2000 male Saudi national are working as nurses in hospitals and PHCCs in Qassim while only 35 non-Saudi male nurses are employed. Likewise, 3113 non-Saudi female nurses are employed and 1399 Saudi female nurses so, total 6547 nursing staff members are working, as population is big so sample that represent the true population has been included. According to Krejci and Morgan (1970) total 357 nurses are required for this study, as this is minimum required data for representing true population, so researchers have increased this to 400.

Research Instrumentation

It has three dimensions i.e., openness, availability and accessibility, each construct was measured on three item scale on the 7-point Likert scale, total nine items for inclusive leadership. Adopted from Wang et al., (2025). Nurses' performance was measured on 5- items scale. All items were measured on seven-point scale.

Data Collection Methods

The questionnaire was developed in google forms, and links were shared with respondents through social media platforms. Respondents were made assured that the data would be kept confidential and would be used only for the study and academic purposes. In this connection, the reputation of organizations and individuals would not be harmed by ensuring ethical standards. In addition, they also communicated that they could withdraw from study anytime and participation in the study would be voluntary.

Data Analysis Tools & Techniques

SPSS and PLS-SEM were used for statistical data analysis. PLS-SEM is second generation software used for exploring complex models and small data sets. It could also be used for non-normal data sets. Descriptive and inferential statistics were used for analysis. Confirmatory factor analysis and structural model were developed. In this regard, the reliability and validity were assessed through

Cronbach alpha, average variance extracted, composite reliability and Fornell-Larcker criterion in current research study.

RESULTS OF STUDY

Table 1 presents personal information of respondents working in private and public sector health organizations in Qassim region Saudi Arabia. It was revealed that majority of the respondents i.e., 74.8% were male and 25.3% were females, regarding age it is evident from the results that majority of the respondents belong to age of 30-35 years i.e., 46% followed by those having age of 25-30 years and lowest score was recorded by age of 40 years and above i.e., 6.3%. Likewise, about sector 84.8% were working in government sector PHCCs and hospitals. The analysis of results explained that 45% of respondents have experience of 5-10 years and followed by those who are five years or less and lowest score is recorded for those having experience of twenty years and more. Regarding administrative positions, most of them were non-administrative staff, i.e., 79.5% and 20.5% have managerial positions.

Table 1 Demographic Information

Variable	Categories	n	%
Gender	Male	299	74.8
	Female	101	25.3
Age	25 Years	44	11.0
	25-30	95	23.8
	30-35	188	47.0
	35-40	48	12.0
	Above 40	25	6.3
Sector	Private	339	84.8
	Public	61	15.3
Experience	Up to 1 year	18	4.5
	1-5 years	107	26.8
	5-10 years	183	45.8
	10- 20 years	72	18.0
	More than 20 Years	20	5.0
Designation	Administrative	82	20.5
	Non-Administrative	318	79.5

Hair, Hult, Ringle and Sarstedt (2017) provided threshold for confirmatory factor analysis (CFA)m for loadings ideal value must be >0.70 and same goes for alpha and composite reliability (CR) >0.70, for AVE >0.50. Table 2 presented CFA finings, it is evident that all values of alpha, CR and AVE met threshold moreover, Table 3 exhibits that Fornell-Larcker criterion (Henseler, Ringle & Sarstedt, 2015) is also established. So, it is assumed that the scales used in this study are reliable and valid. Figure-2.

Table 2 Confirmatory Factor Analysis

Items	Loadings	α	CR	AVE
OP1	0.815	0.764	0.864	0.679
OP2	0.841			

OP3	0.816			
AC1	0.799	0.727	0.846	0.647
AC2	0.802			
AC3	0.812			
AV1	0.813	0.710	0.838	0.633
AV2	0.740			
AV3	0.832			
NP1	0.793	0.817	0.872	0.578
NP2	0.812			
NP3	0.714			
NP4	0.695			
NP5	0.782			

Table 3 Fornell Larcker Criterion

Variables	1	2	3	4
Accessibility	0.804			
Availability	0.672	0.796		
Nurses' Performance	0.914	0.725	0.760	
Openness	0.715	0.748	0.853	0.824

Figure 2 Confirmatory Factor Analysis

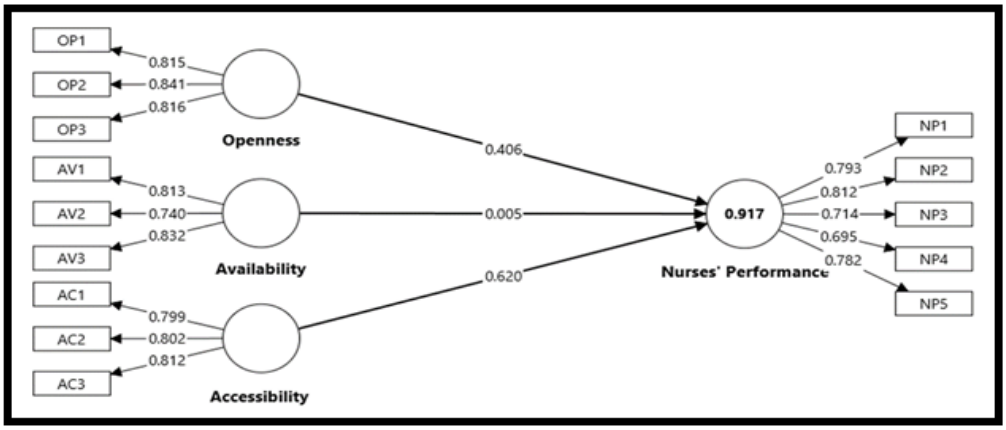


Table 4 Direct Effects

Relationships	β	SE	T	P	LLCI	ULCI
Openness → Nurses' Performance	0.406	0.025	16.483	0.000	0.358	0.453
Availability → Nurses' Performance	0.005	0.021	0.227	0.821	-0.036	0.046
Accessibility → Nurses' Performance	0.620	0.020	30.577	0.000	0.582	0.661

Table 4 presents direct effects of independent variables on dependent variables. The first influence of openness attribute of inclusive leadership shows on nurses' performance (β= 0.406, SE=0.025, t=16.483, p<0.01, LLCI=0.358, ULCI = 0.453) is found positive and significant as evident from results of current research study. On the contrary impact of availability on nurses' performance is (β=0005, SE=0.021, t=0.227, p>0.05). On the other hand, the accessibility facet of inclusive leadership has

significant impact on the nurses' performance (β=0.620, SE= 0.020, t=30.577, p<0.01, LLCI= 0.582, ULCI, 0.661).

DISCUSSION

The current study has investigated the impact of inclusive leadership and its attributes on the nurses' performance in the Qassim region of Saudi Arabia. The findings support that openness and accessibility have significant positive impact on nurses' performance while availability is found insignificant. The findings of this existing study have demonstrated that the inclusive leadership operates through direct effects aligned with integrated framework combined with social exchange theory and COR theory. The findings of this study are in line with findings of Wang et al. (2025) reported that inclusive leadership with openness and accessibility have positive significant impact on nurses' performance. On the contrary availability findings contradict with findings of Wang et al. (2025). The nurses are the frontline professionals in healthcare industry. In this connection, the empirical evidence from this study has offered valuable insights for the healthcare leaders in the Qassim region as well as nurses working in the public as well as private healthcare sector to boost their performance.

Leaders of health sector need to know how to perform their role as leader to get optimum level of performance from their staff. The leaders must be open to listening to problems of their subordinates and must be accessible in times of crisis and need. Managers of healthcare organizations should provide solutions to the problems of nurses so that the health workforce can deliver their services effectively. Inclusive leaders provide supportive work environment, flexible working hours to get optimum level of performance from each employee. In this linking, due to high demanding work schedules, stressful environment and interpersonal relationship issues, nurses have high frequency of psychological distress, anxiety and depression. The nurses are most vulnerable to numerous stress situations which cause negative harm to their involvement in work and job performance. This stress is also associated with age. Consequently, Elnagar, (2019) stated that the youngest the more stress s(he) would face.

CONCLUSION

It is concluded from the findings of this study that health workforce is an asset of organizations, and this asset cannot be imitated by competitors. So, leadership must be open and accessible all time to their employees for listening to their problems & providing solutions to their problems. Leadership must have the ability to adopt inclusive leadership style to get maximum benefit from the expertise of their workforce. Leadership ineffective role could push the workers to stop supporting their organizations, so it is essential for the organizations' leaders and management to adopt the effective leadership styles such as inclusive leadership to support their staff members to make them more efficient and effective. Leaders must make their employees feel that they are valued members of the organization and in addition to this leadership should discourage the dehumanized behavior and environment in the organizations. Healthcare leadership could possibly use HR practices such as low workload, pay for the performance, flexible working hours, decentralized decision making, growth opportunities for nurses in their career such as promotions, and paid leaves to improve the nurses' performance.

Limitations & Future Directions

This study has offered contributions on one side, as well as it is important to highlight limitations and future directions for research. The current study is conducted in healthcare organizations so one must be careful while generalizing the findings to other sectors. Second, this study has used samples from nurses and their managers using small data, so future studies could include physicians and pharmacists to collect and analyze big data. Third, this study has only investigated direct effects of inclusive leadership and its attributes on nurses' performance, so it is mandatory to add mediators like dehumanization, interactivity and moderators such as leader-member exchange to analyze complex models.

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